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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,083	03/30/2004	Grant M. Kloster	42P16006D	7267

7590 05/30/2006  
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EXAMINER
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BREWSTER, WILLIAM M

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,083

Applicant(s)

KLOSTER ET AL.

Examiner

William M. Brewster

Art Unit

2823

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-37 is/are pending in the application.
- 4a) Of the above claim(s) 25-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 030306.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Species I, claims 8-24 in the reply filed on 2 May 2006 is acknowledged. The traversal is on the ground(s) that the restriction is improper, as it is not based on applicant's figures. This is not found persuasive because other figures maybe required to properly diagram all permutations of the invention, interpreting the claim as broadly as reasonably possible. Examiner, in an attempt to speed examination process and economize applicant's expense and time for filing such drawings, will upon occasion, use the claims for species restrictions. If applicant prefers, new or amended drawings may be required for the technicality of the species requirement.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2823

Claims 18-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Farnworth et al., US Patent No. 6,908,784 B1.

Farnworth anticipates limitations from claim 18, a stacked microelectronic device (multi chip module), comprising:

in fig. 18A, a first substrate of silicon, lower 16G, said first substrate having a top surface;

a first plurality of interconnects structures, 42G beneath 52, formed on at least a portion of the first substrate;

in fig. 19G, a layer of nonconductive compliant material, 71PGA, formed on at least a portion of the top surface of the first substrate of silicon, at least a portion of the layer of nonconductive compliant material having a top surface lower than a top surface of at least one of said first plurality of interconnect structures, 71PGA just adjacent to 79PGA, col. 29, line 64 - col. 30, line 23; and

in fig. 18A, a second substrate of silicon, upper 16G, with a second plurality of interconnect structures formed thereon, 42G above 52, said first and second substrates configured such that at least a portion of the interconnect structures of said first and second substrates respectively are in physical contact, through 52, col. 29, line 64 - col. 30, line 23;

Art Unit: 2823

limitations from claim 19, the device of claim 18, in fig. 18A, wherein the device comprises a stacked chipset, MCM, col. 29, line 64 - col. 30, line 9;

limitations from claim 20, the device of claim 18, in fig. 18A, wherein the first and second substrates comprise integrated circuits, col. 29, line 64 - col. 30, line 9;

limitations from claim 21, the device of claim 18, wherein at least a portion of the first plurality of interconnect structures or the second plurality of interconnect structures comprise copper vias, 42PGA, above the surface of 71PGA, col. 30, lines 24-38, col. 19, line 28-44;

limitations from claim 22, the device of claim 18, wherein the compliant material substantially comprises a soft polymer, col. 30, lines 39-56;

limitations from claim 23, the device of claim 18, wherein the compliant material substantially comprises one of polyimide, polybenzoxazole, photodefinable siloxane, novolak, or a polynorborene buffer: polyimide, col. 30, lines 39-56;

limitations from claim 24, the device of claim 18, wherein the compliant material comprises photodefinable and non-photodefinable materials, wherein above-mentioned polyimide, col. 30, lines 39-56, and in 9G, compliant materials include 38AP, photodefinable, photoimagable col. 21, lines 14 - 31.

***Response to Arguments***

Applicant's arguments with respect to claims 18-24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William M. Brewster whose telephone number is 571-272-1854. The examiner can normally be reached on Full Time.

Art Unit: 2823

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM M. BREWSTER  
PRIMARY EXAMINER

18 May 2006  
WB